

FM Stereo/FM-AM Tuner

ST-JX401

Operating Instructions

Before operating the unit, please read this manual thoroughly, and retain it for future reference.

Owner's Record

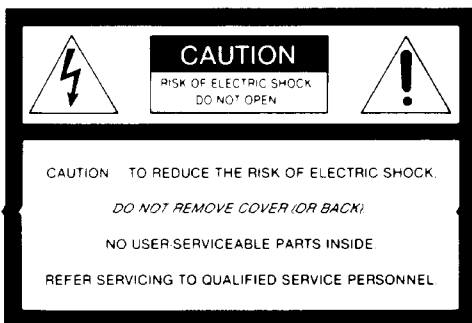
The model and serial numbers are located at the rear. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. ST-JX401

Serial No. _____

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Precautions

On safety

- Operate the unit only on 120 V AC, 60 Hz.
- Should any solid object or liquid fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not to be used for an extended period of time. To disconnect the cord, pull it out by grasping the plug. Never pull the cord itself.

On installation

- Place the unit on a level surface.
- Do not install the unit near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- Good ventilation is essential to prevent internal heat build-up in the unit. Place the unit in a location with adequate air circulation. Do not place the unit on a soft surface.

On cleaning

Clean the cabinet periodically with a soft dry cloth. If the stains are difficult to remove, use a cloth moistened with a mild detergent solution. Do not use solvents such as alcohol, benzene or thinner, since they will damage the finish.

On repacking

Do not throw away the carton and packing materials. It makes an ideal container in which to transport the unit.

If you have any questions or problems concerning your unit that is not covered in this manual, please consult your nearest Sony dealer.

For detailed precautions, see the leaflet "IMPORTANT SAFEGUARDS".

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NATIONAL TECHNICAL DEPT.
FILE COPY
Do not remove

Troubleshooting Guide

Before going through the check list below, first refer back to the connection and operating procedures. Should any problem persist after you have made these checks, consult your nearest Sony dealer.

Trouble	Cause	Remedy
No sound	Switches of the amplifier are wrongly set.	Set them correctly.
Unable to receive stored stations	Frequency is incorrectly stored.	Store the correct frequency.
STEREO indicator blinks	Antenna direction and location are not correct.	Check.
	Different frequency is used from that of the broadcasting station.	Set to the correct frequency.
	Signal is too weak.	Connect an external antenna for FM.
Too many noises	Picking up noises from other electrical apparatus.	Move the tuner and antenna lead-in wire away from the noise sources.
	Antenna direction and location are not correct.	Check.
	Antenna wire collects unnecessary radio waves or noises.	Replace it with a coaxial cable.
	There are working TVs, transceivers and amateur wireless units in the vicinity.	Do not use noise-producing apparatus near the tuner.
	One antenna is used for more than two tuners, or with a TV set.	Use a distributor.
Unable to scan stored stations	TUNING knob is not operated.	First press the MEMORY SCAN button and then turn the TUNING knob.

Specifications

FM tuner

Frequency range	87.5 — 108 MHz
Antenna terminal	300 ohms, balanced 75 ohms, unbalanced
IF	10.7 MHz
Sensitivity	

S/N 50 dB sensitive	Mono	22.1 dBf (7 μ V)
	Stereo	42.1 dBf (70 μ V)
Usable sensitivity (IHF)		19.5 dBf (5 μ V)

Signal-to-noise ratio	80 dB (mono), 75 dB (stereo)
Harmonic distortion	0.3% (mono), 0.5% (stereo) at 1 kHz
Separation	40 dB (1 kHz)
Frequency response	30 Hz — 15 kHz -0.5 dB
Selectivity	55 dB (400 kHz)
AM suppression ratio	54 dB
Image response ratio	50 dB
IF response ratio	90 dB
Spurious response ratio	70 dB
Automatic tuning threshold	17.8 μ V (30 dBf)
Output	775 mV, 4.7 kohms (at 75 kHz deviation)

AM tuner

Frequency range	530 — 1,710 kHz (10 kHz) 531 — 1,710 kHz (9 kHz)
Antenna	Loop antenna, External antenna terminal
IF	450 kHz
Sensitivity (999 kHz or 1,000 kHz)	500 μ V/m (when the loop antenna is in use)
Signal-to-noise ratio	54 dB (mono, normal)
Harmonic distortion	0.5% (mono, normal)
Selectivity	35 dB (9 kHz, normal) 38 dB (10 kHz, normal)
Frequency response	40 Hz — 3.5 kHz -0 dB (normal)

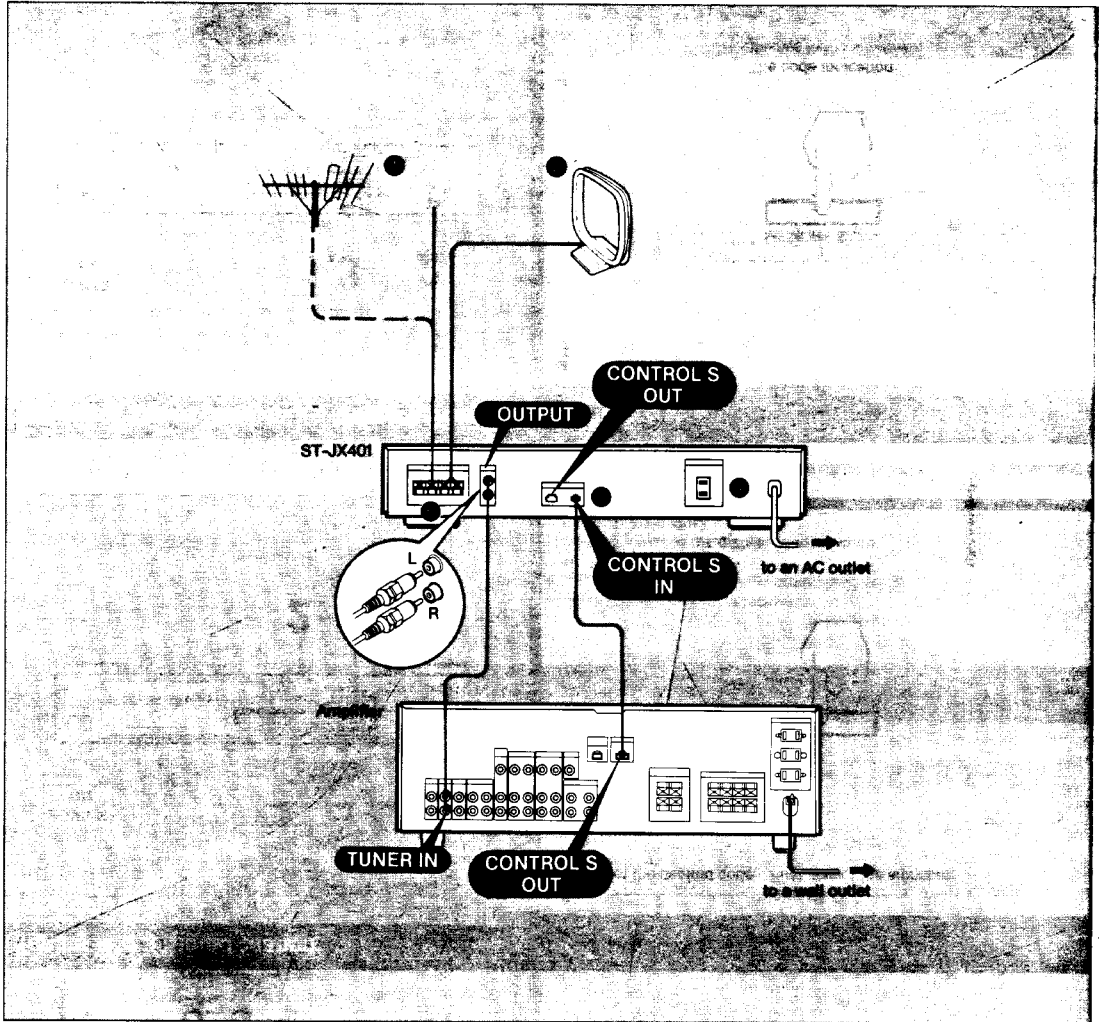
General

Power requirements	120 V AC, 60 Hz
Power consumption	8 W
Dimensions	Approx. 430 × 80 × 265 mm (w/h/d) (17 × 3 $\frac{1}{4}$ × 10 $\frac{3}{4}$ inches)
Weight	Approx. 2.4 kg (5 lb 5 oz)

Supplied accessories

Remote control cord (1)
Connecting cord (1)
FM wire antenna (1)
AM loop antenna (1)

Connections



Note to CATV system installer

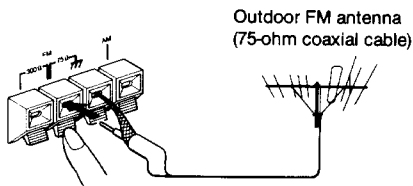
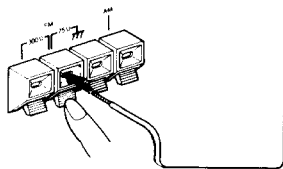
This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Notes on Connections

- Connect the AC power cord last. Make sure power is off.
- Cord plugs and jacks are color coded. Red plugs and jacks are for right channel (R) and white ones for left channel (L).
- The cable connectors should be fully inserted into the jacks. A loose connection may cause hum and noise.
- Keep speaker cords, connecting cords and power cords away from the AM loop antenna and the tuner's antenna lead-in to avoid possible noise pickup.

● **FM wire antenna (supplied)**

For better FM reception

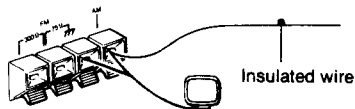
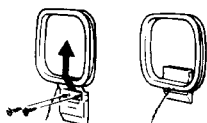
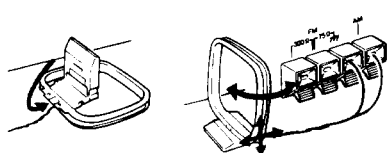


Outdoor FM antenna
(75-ohm coaxial cable)

● **AM loop antenna (supplied)**

If necessary, attach the antenna to a wall.

For better AM reception

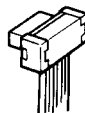


Extend a 6 to 15-meter insulated wire out of doors.
(It is also necessary to connect the supplied AM loop antenna.)

● **CONTROL S connector (4-pin, supplied)**

IN: Connect to the CONTROL S OUT connector of the Sony TA-AX401/TA-AV601/TA-AV501 amplifier for whole audio system remote control.

OUT: Connect to the CONTROL S IN connector of other Sony equipment with the 4-pin flat remote control cord for whole audio system remote control.



● **AC OUTLET**

Use this outlet to power another audio component whose power consumption is less than 100 watts. The outlet is not controlled by the POWER switch of

the tuner. It will continually supply power to any unit connected.

● **Antenna Ground**

To prevent hum, connect the ground wire to ANTENNA ground terminal (⚡). When an outdoor antenna is

installed, be sure to connect the ground wire for lightning protection.

To change the AM tuning interval

The AM tuning interval is preset at the factory to 10 kHz to match the frequency allocation system of your country. To change the interval to 9 kHz, proceed as follows.

- 1 Depress the POWER switch to turn on the unit.
- 2 Set the BAND FM/AM selector to AM.
- 3 Press the POWER switch to turn off the unit.
- 4 Hold the TUNING knob in the "+" position, and depress the POWER switch to turn on the unit. To reset the interval to 10 kHz, follow the same procedure.

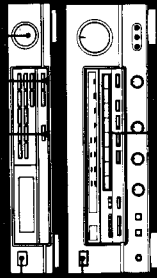
Note

When the interval is changed, all preset stations which you have memorized using the numeric buttons will be erased from the memory. After changing the interval, be sure to preset the stations again.

Receiving Broadcasts

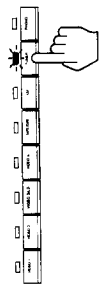
Tuning in Automatically Before reception, be sure to connect the supplied AM and FM antenna.

POWER
- ON



1

2



2 Select the band.

BAND FM/AM

"FM" or "AM" appears in the display window.

3

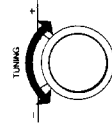


AUTO TUNING

"AUTO" appears in the display window.

4

4 Select the station.



TUNING

For a lower frequency.

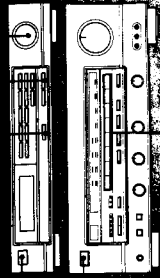
For a higher frequency.

Indications in the display window

- "TUNED" appears in the display window when a station is tuned in.
- "STEREO" appears when an FM stereo program of sufficient signal strength is received.

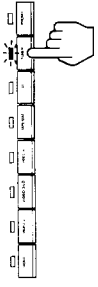
Tuning in Manually

POWER
- ON



1

2



2 Select the band.

BAND FM/AM

"FM" or "AM" appears in the display window.

3

3 Release automatic tuning.

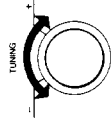


AUTO TUNING

"AUTO" disappears from the display window.

4

4 Select the station.

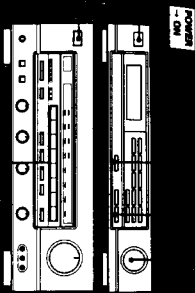


TUNING

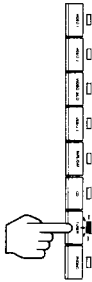
For a lower frequency.

For a higher frequency.

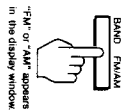
Tuning in Manually



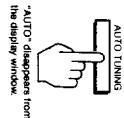
1



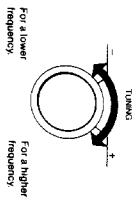
2



3



4



Storing Station Frequencies into Memory



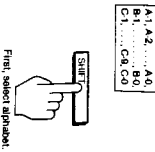
1

Tune in a desired station.

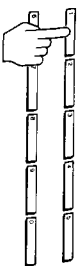
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3



4



How many stations can be stored?
 * Storing a new station on a used code erases the previously stored code.
 A, B, C: Maximum 30 stations can be stored in total.

If you cannot store a station successfully
 You can store a station only while "MEMORY" is displayed. If the "MEMORY" indication has gone off, press MEMORY again.

How long does a station remain stored?
 * Storing a new station on a used code erases the previously stored code.
 * Memory is maintained for approximately one month even if the power remains OFF.